

City of Memphis Section 16-79. Nonprocess Emission Standards
(Shelby County Section 3-21. Nonprocess Emission Standards)

For the purpose of enforcement of the nonprocess emission standards, Chapter 1200-3-6 of the Tennessee Air Pollution Control Regulations, as effective on January 1, 1998, is hereby adopted by reference as a portion of this Code. Such regulations and/or all such additions, deletions, changes and amendments as may subsequently be made shall become a part of this code and shall have the same effect as if set out in full herein.

(City of Memphis Ord. No. 4320, effective 6-7-95; Shelby County Ord. No. 159, effective 5-14-95. Amended by City of Memphis Ord. No. 4636, effective 1-7-99; amended by Shelby County Ord. No. 203, effective 9-18-98. Pursuant to T.C.A. 68-201-115.)

RULES
OF THE
TENNESSEE DEPARTMENT OF ENVIRONMENT AND CONSERVATION
BUREAU OF ENVIRONMENT
DIVISION OF AIR POLLUTION CONTROL

CHAPTER 1200-3-6

NON-PROCESS EMISSION STANDARDS

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- (1) No person shall cause, suffer, allow or permit emissions in excess of the standards in this Chapter.
- (2) In any county where one or more sources are emitting particulate at rates in conformity with applicable maximum allowable emission rates and the ambient air quality standard for particulate matter is being exceeded, the Board shall be responsible for setting an appropriate emission standard for each source contributing to the particulate matter in the ambient air of the area, at such value as the Board may consider necessary to achieve the desired air quality.

Certain areas in the state have been identified as needing additional control beyond that required by this Chapter. These areas and the additional control requirements are stated in Chapter 1200-3-19.

- (3) The owner or operator of an existing fuel burning installation proposing to make a modification of this source or to rebuild or replace it shall only take such action if it will result in the source meeting the maximum allowable emission standards for a new fuel burning installation.
- (4) As used in this Chapter, existing installations or equipment shall mean such as were under construction or in operation prior to April 3, 1972 and non-portable equipment which was not relocated more than 1.0 km from the previous position after November 6, 1988.
- (5) For the purpose of determining the applicable emission standards in this chapter, a change in fuel from natural gas, propane, butane and/or fuel oil to any of these herein named fuels and any required alterations to existing fuel burning equipment to accommodate these fuels shall not be considered a modification. This shall not apply to sources identified in Paragraph 1200-3-9-.01(4). However, the allowable emissions for the source will not change unless Best Available Control Technology is required.
- (6) Regardless of the specific emission standards contained in this Chapter, a new or modified non-process source locating in or significantly impacting upon a nonattainment area shall comply with the provisions of Paragraph 1200-3-9-.01(5) prior to receiving a construction permit.
- (7) Upon mutual agreement of the owner or operator of any air contaminant source and the Technical Secretary, an emission limit more restrictive than that otherwise specified in this Chapter may be established. The emission limit shall be stated as a special condition for any permit or order issued concerning the source. Violation of this agreed to, more stringent emission standard is grounds for revocation of the issued permit and/or other enforcement measures provided for in the Tennessee Air Quality Act.
- (8) Regardless of the specific emission standards contained in this chapter, all non-process sources identified in Paragraph 1200-3-9-.01(4) of these regulations shall comply with the standards set pursuant to Chapter 1200-3-9.

Authority: T.C.A. Section 68-201-105 and 4-5-202. Administrative History. Original Rule certified June 7, 1974. Amended: filed January 10, 1977; effective date February 9, 1977. Amendment filed May 17, 1978; June 16, 1978. Amendment filed February 5, 1979; effective March 21, 1979. Amendment filed May 7, 1979, June 21, 1979. Amendment filed September 21, 1988; effective November 6, 1988.

(1) Existing Fuel Burning Equipment

The maximum hour allowable particulate emissions for a fuel burning installation commenced before April 3, 1972, shall be determined from the following equations:

$$E = 0.600 \quad \text{for } Q \text{ less than or equal to } 10.0 \times 10^6 \text{ Btu/hr}$$

$$E = 0.600(10/Q)^{0.2594} \text{ for } 10.0 \times 10^6 \text{ Btu/hr less than } Q \text{ less than } 10.0 \times 10^9 \text{ Btu/hr}$$

$$E = 0.100 \quad \text{for } Q \text{ greater than or equal to } 10.0 \times 10^9 \text{ Btu/hr}$$

Where:

E = allowable particulate emissions in lb per million Btu.

Q = total installation heat input in million Btu per hour.

(2) New Fuel Burning Equipment

- (a) The maximum allowable particulate emissions for a fuel burning installation commenced on or after April 3, 1972, shall be determined from the equation:

$$E = 0.600 \quad \text{for } Q \text{ less than or equal to } 10.0 \times 10^6 \text{ Btu/hr}$$

$$E = 0.600(10/Q)^{0.5566} \text{ for } 10.0 \times 10^6 \text{ Btu/hr less than } Q \text{ less than } 250 \times 10^6 \text{ Btu/hr}$$

$$E = 0.100 \quad \text{for } Q \text{ greater than or equal to } 250 \times 10^6 \text{ Btu/hr}$$

Where:

E and Q are as defined in paragraph (1) above.

- (b) Where only part of the fuel burning equipment in a fuel burning installation is constructed or modified on or after April 3, 1972, the maximum allowable particulate emissions is determined by the following equation:

$$E_t = (Q_x)(E_x) + (Q_y)(E_y)$$

Where:

E_t = Allowable particulate emission in lb/hr,

Q_x = total heat input for existing equipment in million Btu/hr,

E_x = allowable emissions for installation of size Q_x as determined by paragraph (1) above in lb per million Btu,

Q_y = total heat input for new equipment in million Btu/hr,

E_y = allowable emissions for installation of size Q_y as determined by subparagraph (a) above in lb per million Btu.

- (c) In lieu of (a) above, the maximum allowable particulate emissions from any wood refuse boiler built after April 3, 1972, in which 3% or more of the total heat input is obtained from ammonium sulfite spent liquor, shall not exceed .24 pounds per million BTU heat input. This rule applies to that fuel burning equipment designed to burn wood and when the burning of wood provides at least 30% of the heat input of the unit. This rule does not apply to units burning coal.
- (3) Incinerators
 - (a) The maximum allowable particulate emissions from incinerators is 0.200 percent of the charging rate for incinerators with a 2000 pound per hour charging rate or less and 0.100 percent of the charging rate for incinerators with a charging rate greater than 2000 pounds per hour.
 - (b) Reserved
- (4) (Repealed)
- (5) Relocated non-portable fuel burning equipment. The maximum allowable particulate emissions for nonportable fuel burning equipment which is relocated more than 1.0 km from the previous position after November 6, 1988 shall be the greater of the actual emissions at its previous site or the allowable emissions for new fuel burning equipment.

Authority: T.C.A. Section 68-201-105 and 4-5-202. Administrative History. Original Rule certified June 7, 1974. Amendment filed January 10, 1977; effective February 9, 1977. Amendment filed February 5, 1979; effective March 21, 1979. Amendment filed May 7, 1979; effective June 21, 1979. Amendment filed July 21, 1980; effective September 8, 1980. Amendment filed September 21, 1988; effective November 6, 1988.

- (1) No person shall cause, suffer, allow or permit gaseous emissions in excess of the standards in this Chapter.
- (2) Any person constructing or otherwise establishing a non-portable air contaminant source emitting gaseous air contaminants after April 3, 1972, or relocating an air contaminant source more than 1.0 km from the previous position after November 6, 1988, shall install and utilize the best equipment and technology currently available for controlling such gaseous emission.

Authority: T.C.A. Section 68-201-105 and 4-5-202. Administrative History.
Original Rule certified June 7, 1974. Amendment filed June 21, 1979. Amendment
filed September 21, 1988; effective November 6, 1988.

Authority: T.C.A. Section 68-201-105 and 4-5-202. Administrative History:
Original Rule certified June 7, 1974. Repealed: Filed May 15, 1979, effective June
29, 1979.

- (1) Any wood fired fuel burning equipment commenced before March 1, 1978, must comply with the following emission standards shown below:
 - (a) 0.330 grains of particulate matter per standard dry cubic foot of exhaust gases, corrected to 12% carbon dioxide for fuel burning equipment up to and including 50 million Btu per hour heat input.
 - (b) 0.300 grains of particulate matter per standard dry cubic foot of exhaust gases, corrected to 12% carbon dioxide for fuel burning equipment of 100 million Btu per hour heat input or in excess thereof.
 - (c) The allowable emissions for wood-fired fuel burning equipment between 50 million and 100 million Btu per hour heat input is that determined by linear interpolation between the values in subparagraphs (a) and (b).
 - (d) 0.56 grains of particulate matter per dry standard cubic foot of exhaust gases, corrected to 12% carbon dioxide for fuel burning equipment up to and including 50 million Btu per hour heat input for counties identified in paragraph (8)(d) of this rule.
 - (e) The allowable for wood fired fuel burning equipment between 50 million and 100 million Btu per hour heat input is that determined by linear interpolation between the values in subparagraphs (d) and (b) for counties identified in paragraph (8)(d) of this rule.
- (2) Any wood fired fuel burning equipment commenced on or after March 1, 1978, must comply with the emission standards shown below:
 - (a) 0.330 grains of particulate matter per standard dry cubic foot of exhaust gases, corrected to 12% carbon dioxide for fuel burning equipment up to, and including 25 million Btu per hour heat input.
 - (b) 0.200 grains of particulate matter per standard dry cubic foot of exhaust gases, corrected to 12% carbon dioxide for fuel burning equipment of 100 million Btu per hour heat input or in excess thereof.
 - (c) The allowable emissions for wood-fired fuel burning equipment between 25 million and 100 million Btu per hour heat input is that determined by linear interpolation between the value in subparagraphs (a) and (b).
- (3) Wood as used in this rule means:
 - (a) Bark.
 - (b) Sawdust or other woody plant tissues (lignified xylem) mechanically reduced in size, but not chemically changed.
 - (c) Any combination of the materials in (a) and (b).
- (4) Any fuel burning installation with wood fired fuel burning equipment such that said wood fired fuel burning equipment has 100 million Btu heat input per hour or in excess thereof, shall install, calibrate, maintain and operate a photoelectric or any other type opacity monitor and recorder that has been approved by the Technical Secretary and is of the type referred to in Rule 1200-3-5-.05. This paragraph does not apply where the moisture content of the exhaust is so high that condensation occurs in the stack.

- (5) This rule only applies to that fuel burning equipment designed to burn wood and when the burning of wood provides at least 30% of the heat input of the unit. At other times the unit will revert to being regulated by Rule 1200-3-6-.02. This Rule 1200-3-6-.05 does not apply to units burning coal or liquid fuels other than fuel oils.
- (6) Where fuel burning equipment units in the same fuel burning installation are subject to this rule and are regulated by two different grain loading limits, an average weighted directly on the flow rates will determine the allowable emission limit.
- (7) When a wood fired fuel burning equipment is on a common stack with other air contaminant sources, then the wood fired units shall be considered independent of the other air contaminant sources.
- (8) The applicability of this rule shall be as follows:
 - (a) Paragraph (2) of this rule shall apply to all wood fired fuel burning equipment commenced on or after March 1, 1978 except for those units in Davidson, Hamilton, Knox, and Shelby counties.
 - (b) Paragraph (1) subparts (a) and (c) shall apply to all wood fired fuel burning equipment commenced on or after March 1, 1978 in Madison, Bedford, Hamblen and Coffee counties.
 - (c) Paragraph (1) subpart (b) shall apply to wood fired fuel burning equipment commenced before March 1, 1978 except for units in Davidson, Hamilton, Knox, and Shelby counties.
 - (d) Paragraphs (1)(d) and (1)(e) of this rule shall apply to all wood fired fuel burning equipment commenced before March 1, 1978 in Bradley, Claiborne, Cocke, Cumberland, Dickson, Fentress, Franklin, Gibson, Giles, Grainger, Greene, Henry, Jefferson, Lawrence, Loudon, Macon, Marion, Marshall, McMinn, Montgomery, Polk, Putnam, Rhea, Rutherford, Scott, Sevier, Sumner, Warren, Wayne, Weakley, White, Williamson, and Wilson counties whose emissions have been strategy tested and included in the State Implementation Plan. Any wood fired burning equipment which except for not having had its emissions strategy tested and included in the State Implementation Plan would be wood fired fuel burning equipment designated by the preceding sentence of this subparagraph shall be regulated by subparagraph (1)(a), (b), or (c) of this rule.
- (9) Except as mentioned in paragraph (8) of this rule, all existing wood-fired fuel burning equipment of 50 million Btu per hour heat input or less shall be regulated by Rule 1200-3-6-.02.

Authority: T.C.A. 68-201-105 and 4-5-202. Administrative History: Original Rule filed May 17, 1978; effective June 16, 1978. Amendment filed February 5, 1979; effective March 21, 1979. Amendment filed May 15, 1979; effective June 29, 1979. Amendment filed October 22, 1979; effective December 6, 1979. Amendment filed September 21, 1988; effective November 6, 1988.